

Contents of *Aquaculture*, Volume 158

VOL. 158 NOS. 1, 2

1 DECEMBER 1997

Diseases, Parasites and Predators

- Protection of goldfish against *Ichthyophthirius multifiliis* by immunization with a recombinant vaccine
J. He, Z. Yin, G. Xu, Z. Gong, T.J. Lam and Y.M. Sin (Singapore, Singapore) 1
- Mini-Tn5 induced growth- and protease-deficient mutants of *Aeromonas hydrophila* as live vaccines for blue gourami, *Trichogaster trichopterus* (Pallas)
K.Y. Leung, L.S. Wong, K.W. Low and Y.M. Sin (Singapore, Singapore) 11
- Experimental infection with *Vibrio salmonicida* in Atlantic salmon (*Salmo salar* L.): an evaluation of three different challenge methods
R. Nordmo, S. Sevatdal and A. Ramstad (Namsos, Norway) 23

Genetics and Breeding

- Genetic analysis of testis development in all-male F1 hybrid strains of common carp, *Cyprinus carpio*
A.B.J. Bongers, B. Zandieh-Doulabi (Wageningen, Netherlands), P.K. Voorthuis, H. Bovenhuis (Wageningen, Netherlands), J. Komen and C.J.J. Richter (Wageningen, Netherlands) 33

Husbandry and Management

- Ozonation of a recirculating rainbow trout culture system. I. Effects on bacterial gill disease and heterotrophic bacteria
G.L. Bullock, S.T. Summerfelt, A.C. Noble, A.L. Weber, M.D. Durant and J.A. Hankins (Shepherdstown, WV, USA) 43
- Ozonation of a recirculating rainbow trout culture system. II. Effects on microscreen filtration and water quality
S.T. Summerfelt, J.A. Hankins, A.L. Weber and M.D. Durant (Shepherdstown, WV, USA) 57
- The lipid composition of sealoch sediments underlying salmon cages
R.J. Henderson, D.A.M. Forrest (Stirling, UK), K.D. Black (Argyll, UK) and M.T. Park (Stirling, UK) 69
- Regulating the local environmental impact of intensive marine fish farming. I. The concept of the MOM system (Modelling–Ongrowing fish farms–Monitoring)
A. Ervik, P. Kupka Hansen, J. Aure (Bergen, Norway), A. Stigebrandt (Gothenburg, Sweden), P. Johannessen and T. Jahnsen (Bergen, Norway) 85

Nutrition

- Nutritional values of chironomid larvae grown in palm oil mill effluent and algal culture
M.A.B. Habib, F.M. Yusoff (Selangor, Malaysia), S.M. Phang (Kuala Lumpur, Malaysia), K.J. Ang (Terengganu, Malaysia) and S. Mohamed (Selangor, Malaysia) 95
- Cowpea (*Vigna unguiculata*) protein concentrate as replacement for fish meal in diets for tilapia (*Oreochromis niloticus*) fry
M.A. Olvera-Novoa, F. Pereira-Pacheco, L. Olivera-Castillo, V. Pérez-Flores, L. Navarro and J.C. Sámano (Yucatán, México) 107

- Early weaning of seabass larvae, *Dicentrarchus labrax*: the effect on microbiota, with particular attention to iron supply and exoenzymes
F.-J. Gatesoupe, J.-L. Zambonino Infante, C. Cahu and P. Quazuguel (Plouzané, France) 117
- Effect of supplemental carnitine on body weight loss, proximate and lipid compositions and carnitine content of red sea bream (*Pagrus major*) during starvation
S. Chatzifotis and T. Takeuchi (Tokyo, Japan) 129

Physiology and Endocrinology

- Stress induced elevation of plasma cortisol in adult female coho salmon (*Oncorhynchus kisutch*), is reflected in egg cortisol content, but does not appear to affect early development
M.L. Stratholt, E.M. Donaldson and N.R. Liley (Vancouver, BC, Canada) 141
- Sex reversal in black crappie *Pomoxis nigromaculatus*: effect of oral administration of 17 α -methyl-testosterone on two age classes
S.A. Al-ablani and R.P. Phelps (Auburn, AL, USA) 155

VOL. 158 NOS. 3, 4

15 DECEMBER 1997

Diseases, Parasites and Predators

- Spontaneous steatitis of epicardial fat in farmed white sturgeon (*Acipenser transmontanus*)
F. Guarda, G. Bertoja, I. Zoccarato, E. Tartari (Torino, Italy) and B. Biolatti (Padova, Italy) 167
- Susceptibility to furunculosis, cold water vibriosis, and infectious pancreatic necrosis (IPN) in post-smolt Atlantic salmon (*Salmo salar* L.) as a function of smolt status by seawater transfer
G. Eggset, A. Mortensen, L.-H. Johansen and A.-I. Sommer (Tromsø, Norway) 179
- Minimum inhibitory concentrations of selected antimicrobial compounds against *Flavobacterium psychrophilum* the causal agent of rainbow trout fry syndrome (RTFS)
R.E. Rangdale, R.H. Richards (Stirling, UK) and D.J. Alderman (Weymouth, UK) 193
- Use of prophylactic treatments for larval rearing of giant crabs *Pseudocarcinus gigas* (Lamarck)
C. Gardner and M. Northam (Launceston, Australia) 203
- Single dose pharmacokinetic study of flumequine after intravenous, intraperitoneal and oral administration to Atlantic halibut (*Hippoglossus hippoglossus*) held in seawater at 9°C
O.B. Samuelsen and A. Ervik (Bergen, Norway) 215

Husbandry and Management

- Toxicity of the Thai piscicidal plant, *Maesa ramentacea*, to freshwater fishes in ponds
S. Chiayvareesajja, N. Rittibhobhuhn (Songkhla, Thailand), M. Hongpromyart and P. Wiriyachitra (Chiang Mai, Thailand) 229
- Suspension culture of catarina scallop *Argopecten ventricosus* (= *circularis*) (Sowerby II, 1842), in Bahia Magdalena, Mexico, at different densities
A.N. Maeda-Martínez, T. Reynoso-Granados, P. Monsalvo-Spencer, M.T. Sicard, J.M. Mazón-Suástegui, O. Hernández, E. Segovia and R. Morales (La Paz, Mexico) 235
- Growth of clam seed (*Ruditapes decussatus*) reared in the wastewater effluent from a fish farm in Galicia (N.W. Spain)
R. Jara-Jara, A.J. Pazos, M. Abad, L.O. García-Martín and J.L. Sánchez (Santiago de Compostela, Spain) 247
- Environmental risk from dissolved ivermectin to marine organisms
I.M. Davies (Aberdeen, UK), J.G. McHenry (Edinburgh, UK) and G.H. Rae (Perth, UK) 263

Genetics and Breeding

- Genetic correlations between survival of Atlantic salmon in challenge and field tests
H.M. Gjøsøn, T. Refstie, O. Ulla and B. Gjerde (Aas, Norway) 277

Nutrition

- Diet and feeding regimens for larval doughboy scallops, *Mimachlamys asperima*
W.A. O'Connor (Taylors Beach, NSW, Gore Hill, NSW, Australia) and M.P. Heasman (Taylors Beach, NSW, Australia) 289

Effect of dietary phospholipid on requirements for and incorporation of $n - 3$ highly unsaturated fatty acids in postlarval <i>Penaeus japonicus</i> Bate	
E.K.M. Kontara, P. Coutteau and P. Sorgeloos (Ghent, Belgium)	305
Growth response of juvenile <i>Barbodes altus</i> fed isocaloric diets with variable protein levels	
A. Elangovan and K.F. Shim (Singapore, Singapore)	321
Quantitative lysine requirement of yellowtail (<i>Seriola quinqueradiata</i>)	
T. Ruchimat, T. Masumoto, H. Hosokawa, Y. Itoh and S. Shimeno (Kochi, Japan)	331
Book reviews	
Baseline studies of Biodiversity: The Fish Resources of Western Indonesia	341
Status and Technology of Indian Major Carp Farming in Andhra Pradesh, India	342
Identification of Freshwater Diatoms from Live Material.	343
Books received.	345
Volume contents.	347
Author Index	351
Subject Index	381

